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recorded in the Nineveh inscriptions, the record of which was discovered by Sir Henry Rawlinson. It is spoken of as one of a series of earthquakes which took place in the year of the eclipse of June, B.C. 763. The eclipse is believed to be referred to in Amos viii. 9, where it is said, "I will cause the sun to go down at noon, and I will darken the earth in the clear day."

The date of the fourteenth year of the reign of Hezekiah, which he identified as beginning in March, B.C. 690. This year was marked by an eclipse of the Sun on January 11, B.C. 689, which took place at noon-day. The eclipse Mr. Bosanquet believed was referred to in Isaiah xxxviii. 8.

The eclipse of Thales, in B.C. 585, he made use of to fix the date of the fall of Nineveh, B.C. 583, and the expulsion of the Scythians from Nineveh after their reign of twenty-eight years. The beginning of the reign of Nebuchadnezzar, and, consequently, the date of the captivity, which is coincident with the nineteenth year of Nebuchadnezzar, or B.C. 563.

Mr. Bosanquet was treasurer and took considerable interest in the establishment of the Society of Biblical Archæology. In a recent number of their publications it is mentioned that the Society was indebted to him for the payment of nearly one-half of the cost of their transactions, and that the late Mr. George Smith was first urged into publicity by his generosity.

Mr. Bosanquet was the author of several books and pamphlets, some of the more important of which are: *On the Date of the Fall of Sardis, and the Deposition of Crœsus; Assyrian and Hebrew Chronology Compared; Letter to the Right Hon. Sir George C. Lewis on the Bank Charter Act of* 1844; *On the Egyptian Dynasties of Manetho; On the Date of the Nativity of our Lord; Cyrus the Second; Date of the Fall of Nineveh; Chronological Remarks on the History of Esther and Ahasuerus.* Mr. Bosanquet died on December 22, 1877, at the age of 73.

JAMES SCOTT BOWERBANK was born in July 1797, in the parish of Bishopsgate, London, where his father was a rectifying distiller. He inherited a share of the business, and continued it, in conjunction with his brother, until 1847. In 1818 Dr. Bowerbank became a member of the old Mathematical Society of Spitalfields, and upon its incorporation in 1845 with the Royal Astronomical Society, he became a life member of the latter. He delivered several lectures before the Mathematical Society between the years 1822 and 1824 on Anatomy, Physiology, and Botany; and in 1831 he gave a course of lectures on Human Osteology. It is stated that he first acquired a love for natural history by studying the plants &c. growing in the river Lea, his father having rented a portion of this river in the Edmonton Marshes. His first paper, "Observations upon the Circulation of the Blood in Insects," was published in the *Entomological*

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Magazine for 1833. He became deeply interested in the structure of flints, and arrived at the conviction that flints were formed by the siliceous fossilisation of the *Spongiadæ*, and it is in connection with researches upon sponges that his name will always be known. Of his papers on this subject, published in the *Transactions of the Geological Society* and elsewhere, it is unnecessary to speak, but his elaborate memoir on the "Anatomy and the Physiology of the *Spongiadæ*," printed in the *Philosophical Transactions* for 1858 and 1862, may be specially referred to.

Dr. Bowerbank was one of the founders of the Microscopical Society and of the Palæontological Society. Of the latter he was honorary secretary for many years. He was one of the earliest members of the Entomological Society, and one of the founders, and for many years treasurer, of the Ray Society. He was also a fellow of the Royal, the Linnean, the Geological, and the Chemical Societies; and he received the degree of LL.D.

Dr. Bowerbank's museum was well known on account of its extent and great value. The fossils in his collection were generally selected by the most eminent geologists of the day to illustrate their works; and of the fossil fruits and seeds of the London clay of Sheppey he possessed at one time not less than 100,000 specimens. In his later years he retired to St. Leonards-on-Sea, where he died at his residence on March 9, 1877, in the eightieth year of his age; he was buried in Hollington churchyard.

Mr. Julius Page, who was also a member of the old Mathematical Society, has kindly written the following notes with regard to Dr. Bowerbank's connection with that Society and other matters. Some account of the Mathematical Society was given in the fifty-fifth *Annual Report*, vol. xxxv., pp. 180–183 (1875), in the obituary notice of the late Mr. John Williams. Mr. Page writes:—

"It was about the year 1824 that I first joined the old Mathematical Society in Crispin Street, Spitalfields, and there made the acquaintance of the late Dr. J. S. Bowerbank. From that time I enjoyed his friendship and society until within the last three years, when my own failing health prevented my visiting him at St. Leonards, although our correspondence was kept up to the last.

"Formerly the Mathematical Society gave a course of public lectures during the winter months on the usual scientific subjects; but I do not believe any were given after the year 1821. The members were, however, expected to give lectures or demonstrations, each in his turn. Dr. Bowerbank was one of the most efficient of our members. His studies at that time were chiefly confined to Botany, Geology, and Anatomy. His botanical drawings and models, then employed for illustration, are still, I believe, in the possession of one of the hospitals, where they were formerly used in the lectures.

"Many able scientific men were members of the old Society, among whom I may mention Mr. John Crosley, who was ap-

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pointed by Dr. Maskelyne Assistant at the Royal Observatory, Greenwich. Among the members of my own time were Benjamin Gompertz, Mark Noble, W. Woodall, and J. J. Downes, all known in their day as mathematicians. When I became a member, the Rev. Mr. Parvissien, of Hackney Church, was the president, and he was succeeded by Mr. Benjamin Gompertz; Mr. John Williams was elected secretary in or about 1826.

"The Mathematical Society was founded in 1717, and when I joined it the number of members was, by the rules, restricted to 81; but some years after it gradually fell off, until, in 1845, the number became reduced to about 18. It was then proposed that we should give up our library, which contained many curious and valuable books, to the Royal Astronomical Society, but should retain the right of consulting it. This was acceded to, and we were elected life members of the Royal Astronomical Society on June 13, 1845.

"The late Professor De Morgan, in his *Budget of Paradoxes*, gives an amusing account of the old Mathematical Society. He had been deputed by the Astronomical Society to inspect us, and to report whether we were the kind of persons that the Astronomical Society could admit. His account being favourable, we were admitted. His description of our Society is very graphic, and is worth reading.

"The old Mathematical Society did good service in its time, and to my knowledge several young persons acquired an inclination to study who would probably have otherwise never had their thoughts turned in this direction. The history of the Society would be interesting, but the only man who could have done justice to it was the late Mr. John Williams, the Secretary, who was afterwards Assistant Secretary of the Astronomical and Microscopical Societies; but he died in 1874. All the old records and books of account of the Mathematical Society are in the possession of the Royal Astronomical Society.

"When I first began to visit Dr. Bowerbank, he was living in the New North Road, where I often worked with him in mounting specimens for the microscope. Soon after he removed to Park Street, Islington, where he had much larger rooms and was able to show his treasures; it was here that his celebrated Monday soirées were commenced. But his natural history collections increased, and in 1846 he built his museum at Highbury, in which he had a still larger room for his specimens and also more space to receive his visitors, who were now very numerous. Finding afterwards that it was necessary on account of Mrs. Bowerbank's health and his own to remove to the seaside, he finally left London and established himself at St. Leonards, where he died. I have mentioned his different removals in order to trace the origin and progress of his Monday evening meetings, which were much appreciated by the scientific world.

"It was in 1841, when we were together at Brighton, that occurred the fortunate opportunity which directed all his future

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studies of the sponges. There had been a severe storm and there was left along the beach a thick ridge of sponges, seaweed, &c. He collected a great many of the most promising specimens of the sponges and took them away with him in glass jars. It is needless to remark that he derived more information from them than from many times their number of dried specimens. He had several agents on the coast who collected and forwarded to him specimens of fossils washed out of the cliff, and he now engaged them and others to forward him sponges recently cast up. Through the agency of friends he also obtained many large consignments of sponges from distant parts of the world. His instructions to his agents were always to only remove as much of the watery matter as would prevent the specimen from rotting, and not to send clean washed-out sponges as if intended for the bath-room. He had a large quantity of sponges packed in cases, many of which he had examined under the microscope."

OLINTHUS GREGORY DOWNES, second son of James John Downes, was born in London on April 7, 1823. From his earliest youth he displayed a taste for scientific pursuits, coupled with mechanical ingenuity, and while still almost a boy joined the Islington Literary Society, where he delivered many interesting and instructive lectures. In 1840 he became a clerk at the Economic Life Assurance Society, where his father, whom he succeeded in 1862, was filling the post of actuary. In 1849 he translated Quetelet's *Lettres sur la Théorie des Probabilités*, and the work was noticed by Sir John Herschel in the *Edinburgh Review* for July 1850. In 1860 he published his book upon the physical constitution of comets, which was noticed in the *Monthly Notices*, vol. xx., p. 59. In 1850 he was elected a Fellow of this Society, of which his father and elder brothers were also Fellows (obituary notices of them appeared in vol. xxviii., p. 76, and vol. xxix., p. 122). He was also a member of the London Mathematical Society. In 1869 he resigned his position as actuary of the Economic, and lived in retirement in the country until the time of his decease in May 1877. In December 1855 he married Anne, eldest daughter of the late Colonel Stewart, 46th Regiment. His integrity and talents gained him many friends when in active life who now deeply regret his loss. He has left a widow and four children.

The Rev. WILLIAM LAKE ONSLOW was the eldest son of Captain John James Onslow, Post Captain in the Royal Navy, and grandson of Admiral Sir Richard Onslow, Bart., G.C.B. He was born at Bishop Wearmouth, in the county of Durham, on May 10, 1820, and received his preliminary education at the Grammar School, Yarmouth. Afterwards he was sent to Emmanuel College, Cambridge, where he obtained an exhibition, and took his degree